

WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:
image input means for inputting an image;
image attached information input means for inputting
information attached to the image input by the image input
means;
face detection means for detecting a face from the
image input by the image input means;
face-detection angle-range information determination
means for determining an angle range used in a process of
detecting a face from the input image on the basis of the
image attached information input by the image attached
information input means; and
process control means having a mode to control the
execution of the face detecting process on the basis of
information indicating the angle range determined by the
face-detection angle-range information determination means.
2. The apparatus according to Claim 1, wherein the
process control means controls the execution of the face
detecting process in predetermined angle increments.
3. The apparatus according to Claim 1 or 2, further
comprising:

image rotation means for rotating an image,

wherein the process control means allows the image rotation means to rotate the input image in order to form images in predetermined angle increments, and performs the face detecting process to the respective images.

4. The apparatus according to Claim 1 or 2, further comprising:

reference data conversion means for converting face detection reference data used for face detection into reference data for a tilted face,

wherein the process control means allows the reference data conversion means to convert the face detection reference data into reference data for a tilted face in order to form tilted-face reference data in predetermined angle increments, and executes the face detecting process to the input image using the formed tilted-face reference data.

5. An image processing method comprising:

an image input step of inputting an image;

an image attached information input step of inputting information attached to the image input in the image input step;

a face detection step of detecting a face from the image input in the image input step;

a face-detection angle-range information determination step of determining an angle range used in a process of detecting a face from the input image on the basis of the image attached information input in the image attached information input step; and

a process control step having a mode to control the execution of the face detecting process on the basis of information indicating the angle range determined in the face-detection angle-range information determination step.

6. The method according to Claim 5, wherein in the process control step, the execution of the face detecting process is controlled in predetermined angle increments.

7. The method according to Claim 5 or 6, further comprising:

an image rotation step of rotating an image,

wherein in the process control step, images are formed in predetermined angle increments by rotating the input image in the image rotation step, and the face detecting process is performed to the respective formed images.

8. The method according to Claim 5 or 6, further comprising:

a reference data conversion step of converting face

detection reference data used for face detection into reference data for a tilted face,

wherein in the process control step, tilted-face reference data is formed in predetermined angle increments by converting the face detection reference data into reference data for a tilted face in the reference data conversion step, and the face detecting process is performed to the input image using the formed tilted-face reference data.

9. A computer-system executable program which allows a computer system for executing the program to operate as the image processing apparatus according to any one of Claims 1 to 4.

10. A computer-program storage medium in which a computer program is stored, the program realizing the image processing method according to any one of Claims 5 to 8 and indicating operating procedures of steps included in the method.

11. A computer program realizing the image processing method according to any one of Claims 5 to 8 and indicating operating procedures of steps included in the method.